

What is claimed is:

1. A prefilled syringe comprising: a shoulder portion provided with a luer tip arranged to be connected to an injection needle at a tip thereof; a barrel closed by the shoulder portion and having an open proximal end; and a gasket inserted adjacent to the open proximal end of the barrel in a fluid-tight manner while being freely slidable, a medication being contained inside the barrel, wherein

the barrel has a multilayer structure in which an innermost layer and an outermost layer are both made of a polyolefin resin, and an intermediate layer is sandwiched by the innermost layer and the outermost layer and is composed of at least one layer made of a resin excelling in a barrier property.

2. A prefilled syringe according to claim 1, wherein the intermediate layer is formed up to a vicinity of a surface of the tip of the luer tip.

3. A prefilled syringe according to claim 1, wherein:
an end of the intermediate layer in a cylindrical wall portion of the barrel is formed up to a rim of the shoulder portion;
the shoulder portion formed with the polyolefin resin has a thickness sufficient to exert a barrier property; and
the luer tip is sealed by a cap having a barrier property.

4. A prefilled syringe according to claim 1, wherein the intermediate layer is not formed in a direction of the proximal end of the barrel from a proximal end of an initial insertion position of the gasket inserted in the barrel.

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5. A prefilled syringe according to claim 2, wherein the intermediate layer is not formed in a direction of the proximal end of the barrel from a proximal end of an initial insertion position of the gasket inserted in the barrel.

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6. A prefilled syringe according to claim 3, wherein the intermediate layer is not formed in a direction of the proximal end of the barrel from a proximal end of an initial insertion position of the gasket inserted in the barrel.

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7. A production method for a barrel of a prefilled syringe according to claim 1 comprising the sequential steps of:

(a) injecting a specific amount of a polyolefin resin from an injection unit into a cavity from a gate provided at a position corresponding to a luer tip surface of the barrel;

(b) injecting a specific amount of a resin excelling in barrier property;

(c) injecting a specific amount of the polyolefin resin again;
and

(d) separating the luer tip surface and the injection unit by pushing off at least one of a valve pin provided inside a valve

gate and an inner nozzle of the injection unit toward a direction of the luer tip surface.

8. A production method for a barrel of a prefilled syringe
5 according to claim 1 comprising the steps of:

(a) injecting a specific amount of a polyolefin resin into a cavity from a gate provided at an arbitrary position of the shoulder portion of the barrel; and

(b) thereafter injecting a specific amount of a resin
10 excelling in barrier property.